

IN THE CLAIMS:

Please amend claims 1, 2, 10, 13, 15, 16 and 17 as follows.

1. (Currently Amended) An imaging system for motor vehicles, comprising:
a projector,
a holographic ray uniter, which guides narrow band light to a viewer to produce a virtual image at the viewing location,
a holographic screen, which is produced by means of holographic shooting of a real screen and which scatters incident narrow band light of one or more wavelengths at a predetermined solid angle,
wherein the projector projects the light onto the holographic screen to produce real images on said holographic screen, wherein the holographic ray uniter is transparent to broad band ambient light, and wherein the narrow band light, scattered by the holographic screen, is guided to the viewer.

2. (Currently Amended) The imaging system, as claimed in claim 1, wherein a camera system, which is coupled to the projector, shoots images outside the motor vehicle to enable the a view to at least one of the rear and the side.

3. (Previously Presented) The imaging system, as claimed in claim 1, wherein the holographic ray uniter is arranged, from the viewer's view, at least one of, in front of and on, the windshield of the motor vehicle.

4. (Previously Presented) The imaging system, as claimed in claim 1, wherein the ray uniter is a holographic mirror.

5. (Previously Presented) The imaging system, as claimed in claim 1, wherein the ray uniter is a ray deflector with lens function.

6. (Previously Presented) The imaging system, as claimed in claim 1, wherein the projector comprises lasers with the primary colors red, green and blue.

7. (Previously Presented) The imaging system, as claimed in claim 1, wherein the projector comprises an image modulator.

8. (Previously Presented) The imaging system, as claimed in claim 1, wherein the ray uniter is disposed on a transparent plate.

9. (Previously Presented) The imaging system, as claimed in claim 1, wherein the holographic ray uniter and the holographic screen are arranged in such a manner that the virtual image appears for the viewer enlarged behind the windshield of the motor vehicle at a distance of at least 1.5 meters to the viewer.

10. (Currently Amended) The imaging system, as claimed in claim 1, further comprising a device for coupling ~~the~~ imaging to the motor vehicle control functions.

11. (Previously Presented) The imaging system, as claimed in claim 1, wherein at least one of the ray uniter and the holographic screen is designed and arranged in such a manner that the light cone coming from the ray uniter is limited to the possible dwelling space of the viewer's eyes.

12. (Previously Presented) The imaging system, as claimed in claim 1, wherein at least one of the ray uniter and the holographic screen is designed and arranged in such a manner that they exhibit an imaging function.

13. (Currently Amended) A method for displaying images in motor vehicles comprising the steps of:

projecting images by means of a laser and an image modulator for producing a narrow band light on a holographic screen;

guiding the light rays, ~~coming~~ scattered from the holographic screen, into a viewer's eyes, producing virtual images in a surface ~~extant~~ located in front of the windshield of the motor vehicle by means of a hologram connected in series to the holographic screen to provide ray deflection.

14. (Previously Presented) A method for displaying images in motor vehicles comprising the steps of:

projecting narrow band light of one or more wavelengths on a holographic screen, which is produced by holographic shooting of a real screen, to produce a real image on the holographic screen, and

guiding the light rays, scattered by the holographic screen at a predetermined solid angle, into a viewer's eye,

whereby the light rays are deflected through a hologram and produce a virtual image at the viewer, while simultaneously broad band light of the environment lying behind the hologram passes through the hologram.

15. (Currently Amended) The method as claimed in claim 13, wherein images of ~~the~~ a view from at least one of the rear and the perspective of the motor vehicle side mirrors are faded into the peripheral area of the windshield.

16. (Currently Amended) The method as claimed in claim 13, wherein ~~the~~ an angular distance between ~~the~~ a visual axis in ~~the~~ a direction of travel and the virtual image is less than 30 degrees.

17. (Currently Amended) The method as claimed in claim 13, wherein at least one of the rear and side images from the motor vehicle are displayed as a function of ~~the~~ a driving state or the motor vehicle control functions.

18. (Original) The imaging system as claimed in claim 7, wherein the image modulator is at least one of ferroelectric modulators and micro-mirror devices.

19. (Original) The imaging system according to claim 9, wherein the distance is at least 3 meters.

20. (Original) The method according to claim 16, wherein the angular distance is substantially 10 degrees.

21. (Original) The method as claimed in claim 14, wherein images of the view from at least one of the rear and the perspective of the motor vehicle side mirrors are faded into the peripheral area of the windshield.

22. (Original) The method as claimed in claim 14, wherein the angular distance between the visual axis in the direction of travel and the virtual image is less than 30 degrees.